

REMARKS

Claims 1-20 are pending. Claims 1, 2, 3, 8, 9 and 12-14 have been amended. Claims 21-31 are withdrawn due to a restriction requirement. Applicant requests reconsideration and reexamination of the pending claims.

As the Examiner has suggested, the title has been amended to more clearly delineate the claimed invention.

The ABSTRACT has been amended to direct the content thereof to the elected invention. No new matter has been added.

Per the Examiner's recommendation, the specification has been amended to provide written support in the specification for the range of thicknesses from between "1000 Å and 1 µm" as set forth in the originally filed Claims 3 and 14. No new matter has been added.

Claim 9 is objected to as being of improper dependent format. Claim 9 has been amended to depend from Claim 1, which makes the dependency proper.

Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. Claims 13 and 14 have been amended to clearly delineate the claimed invention. Claims 13 and 14 are in condition for allowance.

Claims 1, 5-9, 12-13, and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yen (USPN 5,174,043). Claims 3-4 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yen. Claims 2, 11, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yen in view of Ouellet (USPN 5,470,798). Claims 1, 3-10, 12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al. (USPN 5,380,608) in view of Yen. Applicant overcomes the rejections as follows.

Claims 1 sets forth, *inter alia*, "heating said first layer at about atmospheric pressure to a first process temperature for a first time duration to cause said first layer to outgas and form a first processed layer." Applicant could find no teaching or suggestion in Yen including such a feature.

In contrast, Yen discloses that:

"[m]ost of the vehicle or solvent is driven off by a low temperature baking step. At this point, the critical vacuum degassing step is accomplished by subjecting the wafer to a vacuum of less than about 100 mtorr and 350 degrees C. This last step removes chemical materials which could during latter processing cause cracking and corrosion of the next level conductor material. Other coatings of the spin-on-glass material are applied, baked and vacuum degassed until the desired spin-on-glass layer is formed." (emphasis added)

Thus, unlike in the present invention, Yen discloses performing a degassing step in a vacuum and not at "about atmospheric pressure." Accordingly, since Yen teaches away from outgassing at about atmospheric pressure, Claim 1 is not anticipated by Yen.

Claim 12 sets forth, *inter alia*, "heating said first layer to a first process temperature at about atmospheric pressure for a first time duration to cause said first layer of SOG to outgas." As discussed above, Yen fails to teach or suggest performing outgassing at about atmospheric temperature. Accordingly, Claim 12 is allowable over Yen.

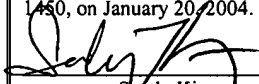
With regard to Claims 1 and 12, Applicant has reviewed the disclosure of Miyashita et al. and has determined that since Yen does not teach the formation of an SiO₂ layer in the same manner as in the present invention, Yen cannot cure the deficiencies of Miyashita et al. to arrive at Applicant's invention. Accordingly Claims 1 and 12 are allowable over Miyashita et al. in view of Yen.

Claims 2-11 depend from Claim 1 and are therefore allowable of at least the same reasons as Claim 1 as well as for the novel features which they add. Claims 13-20 depend from Claim 12 and are therefore allowable for at least the same reasons as Claim 12.

CONCLUSION

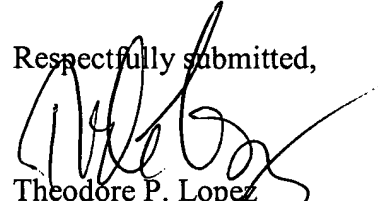
For the above reasons, pending Claims 1-20 are now in condition for allowance and allowance of the application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicant's Attorney at (949) 752-7040.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on January 20, 2004.


Sandy Kim

January 20, 2004
Date of Signature

Respectfully submitted,


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